

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 4 and 5 have been cancelled.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-3 and 6-17 are now pending in this application. Claims 1, 16, and 17 have been withdrawn. Claim 14 has been provisionally withdrawn as being drawn to a nonelected species.

Rejections under 35 U.S.C. § 112

Claims 2-6 and 15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. These rejections are respectfully traversed. The claims have been amended to overcome these rejections.

In particular, the Office asserts that the language “road surface irregularities” is not clear. See Office Action at page 2. Applicants respectfully disagree. Applicants note that claim 2 not only recites “a road-surface irregularities detection section” but also “irregularities formed on or close to the lane marking line.” Therefore, Applicants submit that the language of claim 2 is definite because one of ordinary skill in the art would be able to ascertain the metes and bounds of claim 2. Furthermore, claim breadth is not indefiniteness. See M.P.E.P. § 2173.04. Therefore, a claim with broad language is not necessarily indefinite.

The Office asserts that the language regarding the fourth and fifth states, which has now been incorporated into claims 2 and 15, was previously recited in claim 2. See Office Action at page 3. Applicants respectfully disagree. Applicants note that a lane-deviation tendency detection section is configured to estimate whether a host vehicle is in a first or

second state “based on a detection result regarding the lane marking line,” and that a lane-deviation tendency estimation section is configured to estimate whether a host vehicle is in a fourth or fifth state “based on the lane marking line detected by the lane marking detector before the transition from the lane-marking detecting state to the lane-marking non-detecting state,” as recited in claims 2 and 15. Therefore, the fourth and fifth states do not refer to the same states as those of the first and second states.

The Office asserts that the language “a substantially constant time period,” as recited in claim 6, is indefinite because time is never constant. Applicants respectfully disagree. Claim 6 does not recite that time itself is substantially constant. Claim 6 recites “a substantially constant time period.” (emphasis added) For example, Applicants’ disclosure discusses a substantially constant time period on page 22, line 17, to page 23, line 16. As shown in the example of Figure 4B, “a substantially constant time period” can refer to the oscillation or wave period of a vehicle wheel speed. Therefore, Applicants submit that the language of claim 6 is clear to one of ordinary skill in the art and that one of ordinary skill in the art would be able to ascertain the metes and bounds of claim 6.

For at least the reasons discussed above, withdrawal of these rejections is respectfully requested.

Rejection under 35 U.S.C. § 102

Claims 2-13 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,913,375 (hereafter “Nishikawa”). This rejection is respectfully traversed.

Nishikawa discloses a vehicle steering force correction system that includes an image sensor, such as a CCD camera 10, for capturing a view of the road, including the traffic lanes ahead. See Nishikawa at col. 6, lines 36-40. Nishikawa discloses that the output of the camera 10 is input to an image processing unit 64 that processes the data to detect the condition on the road before the vehicle. See Nishikawa at col. 7, lines 16-18. A technique based on the premise that the vehicle travels on a road with traffic lanes defined by lane markers is used for determining a desired path and desired steer angle of a vehicle. See Nishikawa at col. 7, lines 31-62. Nishikawa discloses that the CPU 2 of the system evaluates

the current steer angle and changes the steering force when a degree of danger is too high. See Nishikawa at col. 8, lines 3-11.

However, Nishikawa does not disclose a lane-deviation tendency detection section configured to determine whether the host vehicle is in a first state or a second state “based on a detection result regarding the lane marking line,” wherein “the first state has a stronger tendency for the host vehicle to deviate from the driving lane than the second state.” Nishikawa does not disclose the recited first state or second state. Nor does Nishikawa disclose that the CPU 2 is configured to determine if the vehicle is in such a first state or second state “based on a detection result regarding the lane marking line.”

Nishikawa does not disclose a road-surface irregularities detection section configured to determine “whether the host vehicle is in a third state where the host vehicle is traveling on predetermined irregularities formed on or close to the lane marking line.” Nishikawa does not disclose a third state “where the host vehicle is traveling on predetermined irregularities formed on or close to the lane marking line.” Nishikawa only discloses lane markers in relation to a technique for determining a desired steer angle based upon a desired path of a vehicle in a traffic lane defined by lane markers. Nor does Nishikawa disclose that the CPU 2 is configured to determine if the vehicle is in such a third state.

Nishikawa does not disclose a vehicle yawing motion control section configured to execute vehicle yawing motion control “based on a detection result of the road-surface irregularities detection section and a detection result of the lane-deviation tendency detection section.” Nishikawa does not disclose that the CPU 2 controls vehicle yawing motion of a vehicle on the basis of a detection result of a road-surface irregularities detection section, which determines if the vehicle is in a third state “where the host vehicle is traveling on predetermined irregularities formed on or close to the lane marking line,” and a detection result of the lane-deviation tendency detection section, which determines if the vehicle is in a first or second state. Nor does Nishikawa disclose that the CPU 2 is configured to execute vehicle yawing motion control “in a lane-marking non-detecting state where the lane marking line cannot be recognized or detected by the lane marking detector.” Nishikawa does not discuss a state when lane markers cannot be recognized or detected by the camera 10.

For at least the reasons discussed above, Nishikawa fails to disclose all of the features of claims 2 and 15. Withdrawal of this rejection is respectfully requested.

Applicants note that the claims have been amended to recite "configured to" language. Although the Applicants do not agree that the former language regarded method steps or intended use, Applicants submit that the present language recites structural features and therefore must be given full patentable weight. Furthermore, even if the present claim language could be considered to recite intended uses, the system of Nishikawa is not capable of performing the intended uses recited by the claims for at least the reasons discussed above.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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